

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 19 JAN 2001

WIPO PCT

Applicant's or agent's file reference 08-880990WO		FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/CA99/00873	International filing date (day/month/year) 24/09/1999	Priority date (day/month/year) 25/09/1998	
International Patent Classification (IPC) or national classification and IPC H04Q3/00			
Applicant SOMA NETWORKS, INC. et al.			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 6 sheets, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 27 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 20/04/2000	Date of completion of this report 17.01.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Tillgren, M Telephone No. +49 89 2399 7497 

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/CA99/00873

## I. Basis of the report

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).):*

### Description, pages:

1,5,13,17-19,21,  
26-28,30,31 as originally filed

2,3,6,7,9-12,14-16,  
20,22-25,29,32,  
33 as received on 16/10/2000 with letter of 13/10/2000

4,4a,8 as received on 19/10/2000 with letter of 16/10/2000

### Claims, No.:

1-12 with telefax of 14/12/2000

### Drawings, sheets:

2/8,4/8-6/8,8/8 as originally filed

1/8,3/8,7/8 as received on 16/10/2000 with letter of 13/10/2000

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in

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the international application as filed has been furnished.

- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description,          pages:  
☐ the claims,                Nos.:  
☐ the drawings,            sheets:

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

**see separate sheet**

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims	1-12
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-12
Industrial applicability (IA)	Yes:	Claims	1-12
	No:	Claims	

2. Citations and explanations  
**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item I**

The new claim set has not been fully examined, since amendments made have no basis in the originally filed international application (Rule 70.2(c)) for the following reason:

The expression "each hardware device of the telecommunication network which receives the executable graph analysing the executable graph to determine which filters the device is going to implement and how the filters are going to be interconnected in the device and in the network" (feature v) used in independent claim 1 can not be unambiguously derived from the original application. This feature implies that the analysis of the software graph is made locally in the hardware devices that are supposed to implement the functionality of the graph. The statement on page 9, lines 21-24 referred to by the applicant to give basis for this feature only describes the use of a distributed operating system, from which it is not possible to clearly and unambiguously derive the implementation of a locally made analysis. On the contrary in the description of the Signal Processing Object Software on page 12 it is stated on lines 32-33 that "As well, the signal processing object should ensure that such facilities are run on trusted hardware". If the signal processing object is to decide which hardware to use this implies a central analysis of the graph.

The examination is based on present claim 1 but without regarding the above mentioned feature (v).

**Re Item V**

The claims have been interpreted with help of the description (see section VIII below).

With regard to independent claim 1, document WO-A-97 36430 (hereinafter referred to as D1) discloses a method of implementing a communication over a telecommunication network (abstract), comprising the steps of: initiating a request for a communication, the request identifying desired parameters and features for the desired communication (page 11, lines 7-21), determining and constructing a proposed graph representing a proposed selection and arrangement of available filters and connections required to implement the desired communication (see figure 2 and page 7, lines 9-15), transmitting the proposed graph to the telecommunications network, the network

analysing the proposed graph (page 6, lines 14-26) to correct inconsistencies and/or detected errors in the proposed graph (page 12, line 1), and transmitting the executable graph to the hardware of the telecommunication network required to implement the desired communication (page 9, lines 23-26).

The difference between D1 and the subject matter of claim 1 is that D1 does not explicitly disclose that each device of the telecommunication network execute the respective filters and connections to implement the desired communication. This is however implicitly disclosed since it would not be possible to implement a service in the network of D1 if this was not done. Furthermore there is no disclosure in D1 of a determination and addition of filters and/or connections required to implement the desired communication on the network to obtain an executable graph. Since there is an error monitoring function disclosed in D1 and this would not be useful if the errors were not corrected this feature must however be considered obvious to a man skilled in the art.

Hence claim 1 does satisfy the criterion set forth in Article 33(2)&(4) but not the criterion set forth in Article 33(3) PCT because the subject matter contained therein does not involve an inventive step.

The subject matter of claims 2 (to implement billing functions), 4 (to do steps iv-vi all over if necessary), 6 (test for compliance with a desired parameter), 7 (ensure compliance with a desired parameter), 8 (determining an appropriate cost), 9 (different protocols are used in the network), 11 (one filter comprises a conference bridge) and 12 (the graph includes more than one path) are all either of a purely implementational nature or rendered obvious by D1 and do therefore not contribute to an inventive step.

The subject matter of claims 3 (to implement routing) and 10 (the use of a GUI) are known from D1 (page 8, lines 21-22 and page 7, lines 9-15 respectively).

The document WO-A-98 37688 (hereinafter referred to as D2) discloses to transfer a filter required by a device in the telecommunication network to the device through the telecommunication network (page 14, line 14-page 15, line 25). D1 and D2 together contain all the features of claim 5 and since they both relate to the field of implementing services in a telecommunications network it is considered obvious for the man skilled in

the art to combine them and arrive at the subject matter of claim 5.

Hence claims 2-12 do satisfy the criterion set forth in Article 33(2)&(4) but not the criterion set forth in Article 33(3) PCT because the subject matter contained therein does not involve an inventive step.

### **Re Item VIII**

It is clear from the description on pages 4-8 that the following feature is essential to the definition of the invention:

(1) Sending a user defined description of a service to the network when requesting this service, wherein this description is analysed and the service is implemented by the network to make it possible to provide the user with the requested service.

Since independent claim 1 does not contain this feature it does not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

Furthermore, claims 1- 3, 5-7 and 11-12 do not meet the requirements of Article 6 PCT since they are not clear.

The expression "filters" used in claims 1-3, 5-7 and 11-12 gives the impression that the subject matter of these claims is directed towards filtering of signals, wherein the description gives the impression that these "filters" should be interpreted as being functional building blocks for implementing different services in a telecommunications network.

The general spirit statement in the description on page 32 is unclear, and when used to interpret the claims renders them unclear, contrary to Article 6 PCT. The statement should therefore have been deleted.